

REMARKS

Reconsideration of the present application in light of the above amendments and the following remarks is respectfully requested. Claims 1-5, 7-8, 10-12, 14, 17-22, 24, and 25 are pending. Claims 6, 9, 13, 15, 16 and 23 are canceled without prejudice to the future filing of one or more continuation or divisional application(s). Claims 1, 3-5 and 17-19 are currently amended. Support for the amendments and new claims may be found throughout the instant specification and claims as originally filed. In particular, at lines 7-8, page 8; lines 1-22, page 13; line 15, page 16—line 10, page 17; line 28, page 23—line 11, page 24; and lines 9-11, page 26, of the originally filed application. No new matter has been added.

Objection to the Abstract

The Abstract stands objected to as allegedly not conforming to the proper format. In particular, the Action alleges the Abstract is in two paragraphs. Applicants thank the Examiner for pointing out this discrepancy and submit a rewritten Abstract herewith for approval. Accordingly, Applicants submit this objection has been overcome, and respectfully request the objection be withdrawn.

Rejection under 35 U.S.C. § 101, Statutory Double Patenting

Claims 1-5, 7-8, 10-12, and 14 stand rejected under 35 U.S.C. § 101 statutory double patenting as allegedly claiming the same invention as that of claims 1-5, 6, 8, 10-11, and 13-14 of parent application, U.S. App. Ser. No. 09/767,515, issued as U.S. Patent No. 6,586,207.

Applicants thank the Examiner for noting this oversight, and submit independent claim 1 is currently amended to no longer claim the same invention as U.S. Patent No. 6,586,207. Support for these amendments may be found, for example, at lines 9-11, page 26, and line 28, page 23—line 11, page 24, as well as Examples I-III of the originally filed application. Accordingly, Applicants submit that this statutory double patenting rejection has been obviated, and respectfully request this rejection be withdrawn.

Rejection under 35 U.S.C. § 102, First Rejection

Claims 17 and 22 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by RajBhandary (U.S. Patent No. 5,879,905). Specifically, the Action alleges RajBhandary teaches a recombinant vector comprising a polynucleotide sequence encoding an aminoacyl-tRNA synthetase for a selected amino acid and a polynucleotide encoding a polypeptide molecule of interest, as well as host prokaryotic cells comprising said vectors.

Applicants respectfully traverse this rejection and submit RajBhandary does not anticipate the presently claimed invention because it does not teach each and every element of the claims. In particular, the cited reference merely provides for alternative initiator codons, and only teaches using the 19 naturally occurring amino acids (other than methionine) as an alternative initiator codon. (*See* Col. 3, Claims 1-9, U.S. Patent No. 5,879,905.) Applicants submit the presently claimed vectors comprise a polynucleotide sequence encoding an aminoacyl-tRNA synthetase for a desired amino acid analogue and a polynucleotide sequence encoding a polypeptide molecule of interest, as well as a host cell comprising the same.

Thus, the presently claimed vectors include an aminoacyl-tRNA synthetase for a desired amino acid analogue, which is clearly absent in the cited reference. Since the cited reference does not teach each and every element of the claims, it does not anticipate the present invention. Applicants submit that, solely to expedite prosecution and without acquiescing to any rejection, claim 17 has been amended for clarification. Accordingly, Applicants submit this rejection has been overcome and respectfully request the rejection be withdrawn.

Rejection under 35 U.S.C. § 102, Second Rejection

Claim 15 stands rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Duewel et al. (*Biochem., 1997, V. 36, pp. 3404-3416*). Specifically, the Action alleges Duewel et al. teach a modified phage lysozyme wherein a methionine is replaced with an amino acid analogue. The Action concedes that the modified lysozyme of the cited reference is prepared by a different process than the presently claimed polypeptides, which are claimed as product-by-process.

Applicants traverse this rejection and submit the cited reference fails to anticipate the presently claimed invention because it does not recite each and every element of the claims. However, Applicants note that solely to expedite prosecution and without prejudice to future filings of any removed subject matter, claim 15 has been canceled. Accordingly, this rejection is rendered moot. Applicants respectfully request this rejection be withdrawn.

Rejection under 35 U.S.C. § 102, Third Rejection

Claims 17-18, and 20-22 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Dardel et al. (*J. Bacteriol.* 1984, V. 160, No. 3, pp. 1115-1122). In particular, the Action alleges Dardel et al. teach a recombinant vector comprising a polynucleotide sequence encoding a methionyl tRNA synthetase, a polynucleotide encoding a polypeptide molecule of interest, and *E.coli* host cells comprising the vector.

Applicants respectfully traverse this rejection and submit the presently claimed invention is not anticipated by the cited reference because it does not teach each and every element of the claims. Applicants submit that the cited reference merely teaches the molecular cloning of the naturally-occurring *E.coli* methionyl-tRNA synthetase gene and does not disclose a recombinant vector comprising a polynucleotide sequence encoding an aminoacyl-tRNA synthetase for a desired amino acid analogue, including a methionyl tRNA synthetase and a polynucleotide sequence encoding a polypeptide molecule of interest, or a host cell comprising the same.

Applicants submit that, solely to expedite prosecution but without acquiescing to any rejection, Applicants have amended claims 17 and 18 for clarification. Support for the amendment may be found among others, at Examples I-III of the originally filed application. Accordingly, Applicants submit the grounds for this rejection have been overcome and respectfully request this rejection be withdrawn.

Rejection under 35 U.S.C. § 102, Fourth Rejection

Claims 17-18, and 20-22 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Tao et al. (U.S. Patent No. 6,221,640). In particular, the Action alleges Tao

et al. teach a vector comprising a polynucleotide sequence encoding an aminoacyl-tRNA synthetase, a polynucleotide encoding a polypeptide molecule of interest and host auxotroph cells comprising said vector.

Applicants respectfully traverse this rejection and submit that the cited reference does not anticipate the presently claimed invention because it does not teach each and every element of the claims. Applicants submit Tao et al. merely teach the isolation of recombinant nucleic acids encoding an aminoacyl-tRNA synthetase of enterococcal origin, but do not disclose a recombinant vector comprising a polynucleotide sequence encoding an aminoacyl-tRNA synthetase for a desired amino acid analogue, including a methionyl tRNA synthetase, and a polynucleotide sequence encoding a polypeptide molecule of interest or a host cell comprising the same. Applicants submit that, solely to expedite prosecution and without acquiescing to any rejection, claims 17 and 18 have been amended for clarification. Accordingly, Applicants submit the grounds for this rejection have been overcome and respectfully request this rejection be withdrawn.

Rejection under 35 U.S.C. § 103

Claim 19 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tao et al. (U.S. Patent No. 6,221,640) in view of Smith et al. (U.S. Patent No. 5,627,033) or Maddon et al. (U.S. Patent No. 5,110,906). Specifically, the Action alleges Tao et al. teach the claimed recombinant vector but do not indicate that the vector contains a sequence encoding dihydrofolate reductase, but allegedly teach other selectable marker genes. Whereas Smith et al., and Maddon et al., allegedly teach that dihydrofolate reductase is a well-known marker used to identify cells. Thus, the Action alleges it would have been obvious to one of skill in the art to choose a dihydrofolate reductase gene as a marker, as in Smith et al. and Maddon et al. with the vector system of Tao et al. in order to identify transformed cells.

Applicants respectfully traverse this rejection and submit that none of the cited references, alone or in combination, render the presently claimed vector obvious to one of ordinary skill in the art. Applicants submit that, contrary to the Action's allegations, Tao et al. do not teach the claimed recombinant vector, for the reasons set forth in detail in the preceding

remarks. Applicants submit that Tao et al. do not render obvious the presently claimed vectors as the reference does not disclose or suggest a recombinant vector comprising a polynucleotide sequence encoding an aminoacyl-tRNA synthetase for a desired amino acid analogue and a polynucleotide sequence encoding a polypeptide molecule of interest, wherein said polypeptide molecule of interest encodes dihydrofolate reductase.

Further, Applicants submit neither Smith et al. nor Maddon et al., either alone or in combination, remedy the deficiency of Tao et al. Applicants submit that while Smith et al. and Maddon et al. provide a laundry list of markers that may be useful for identifying manipulated cells, neither reference provides for a recombinant vector comprising a polynucleotide sequence encoding an aminoacyl-tRNA synthetase for a desired amino acid analogue and a polynucleotide sequence encoding a polypeptide molecule of interest, wherein said polynucleotide sequence encoding a polypeptide molecule of interest encodes dihydrofolate reductase. Applicants submit that, without acquiescing to any rejection but solely to expedite prosecution, claim 19 has been amended for clarification. Accordingly, Applicants submit the grounds for this rejection have been overcome and respectfully request this rejection be withdrawn.

Rejection under 35 U.S.C. § 112, Second Paragraph

Claims 4-5 and 16-22 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Action alleges that claim 4 is awkward in syntax; claim 16 depends from a canceled claim; claim 17 lacks antecedent basis for the term “the selected amino acid;” and claim 19 is vague with regard to the phrase “encodes for dihydrofolate reductase protein” and should instead recite, “encodes dihydrofolate reductase.”

Applicants traverse this rejection and submit the present claims distinctly claim the subject matter which Applicants regard as the invention. Nonetheless, solely to expedite prosecution and without acquiescing to any rejection, Applicants have canceled claim 16 and amended claims 4-5 and 17-19 for clarification in accordance with the suggestions set forth by the Action. Applicants submit support for the amendment may be found, for example, at line 28,



page 23—line 11, page 24; line 29, page 16—line 10, page 17; line 23, page 22—line 11, page 26. Accordingly, Applicants submit the basis for this rejection has been overcome, and respectfully request the rejection be withdrawn.

Objection to Claim Language

Claims 3 and 5 stand objected to for allegedly having improper Markush grouping language. Specifically, the Action alleges the claims use the phrase “or,” rather than the phrase “and” in the Markush group. Applicants thank the Examiner for pointing out this typographical error and submit that claims 3 and 5 have been amended as suggested. Accordingly, Applicants respectfully request this objection be withdrawn.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Applicants respectfully submit all of the claims remaining in the application are believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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Enclosures:

Petition for Extension

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